

AMENDMENTS TO THE CLAIMS:

1. (Currently Amended) A method for automatically launching an application in a computing device by authenticating a user via a digital camera associated with said computing device, said method comprising:

- (a) obtaining a digital representation of said user via said digital camera;
- (b) filtering said digital representation with an digital edge detection algorithm, gradient filter, the output of which is applied to a Laplacian or Gaussian filter to provide accurate edge detection while being run on a low power computer, to produce a resulting digital image;
- (c) comparing said resulting digital image to a pre-stored digital image of said user, ~~wherein said comparing includes utilizing a filter to improve comparing of the resulting image with the pre-stored image;~~
- (d) retrieving user information including an application to be launched in response to a successful comparison result, said user information being associated with said pre-stored digital image of said user; and
- (e) launching said application.

2. (Original) The method according to Claim 1, further comprising a step of: aligning said user in relation to said computing device for obtaining a digital representation of said user.

3. (Original) The method according to Claim 1, further comprising a step of: centering said resulting image with respect to a frame provided in said computing device.

4. (Original) The method according to Claim 1, said comparing step further comprising a step of: sliding vertical and horizontal edges of said resulting image over said pre-stored image for enabling said comparing.

5. (Original) The method according to Claim 1, wherein said resulting image and said pre-stored image for said user are binary matrices.

6. (Cancelled)

7. (Original) The method according to Claim 1, wherein said pre-stored digital image of said user is stored in a database on said computing device.

8. (Original) The method according to Claim 1, wherein said application is an e-mail client.

9. (Original) The method according to 8, said launching step further comprising a step of: logging into said e-mail client by utilizing user information including username and password associated with said user.

10. (Original) The method according to 8, further comprising a step of:

automatically retrieving one or more e-mail messages from said e-mail client for said user; and
displaying said one or more e-mail messages to said user via a display.

11. (Original) The method according to Claim 1, further comprising a step of: sensing said user in proximity to said computing device for obtaining said digital representation of said user.

12. (Previously Presented) The method according to Claim 1, wherein said user interacts via an interface with said computing device for obtaining said digital representation of said user.

13. (Original) The method according to Claim 1, wherein said pre-stored digital image for said user is obtained from a pre-existing digital representation of said user filtered by an edge detection algorithm.

14. (Original) The method according to Claim 1, wherein said edge detection algorithm is a one bit per pixel edge detection algorithm.

15. (Original) The method according to Claim 14, wherein said one bit per pixel edge detection algorithm is a Sobel operator.

16. (Original) The method according to Claim 1, wherein said filtering step further comprises a step of: filtering said resulting digital image with a second edge detection algorithm which is selected from the group consisting of: a Laplacian filter; and a Gaussian filter.

17. (Original) The method according to Claim 1, wherein in response to said successful match, user information corresponding to said user including user's name is displayed to said user on a visual display.

18. (Original) The method according to Claim 1, wherein if no match is found for said user, said method further comprising the steps of:

prompting said user to enter user information associated with said pre-stored image of said user; and

launching said application in response to a successful match of entered user information to user information associated with said pre-stored image of said user.

19. (Original) The method according to Claim 1, said method further comprising a step of: updating said pre-stored digital image of said user by merging said pre-stored digital image with said resulting digital image to generate a composite image.

20. (Original) The method according to Claim 19, wherein said composite image is generated by taking an arithmetical mean of said pre-stored digital image and said resulting digital image.

21. (Original) The method as claimed in Claim 19, further comprising a step of: processing said composite image with a least squares algorithm for improving definition of edges in said composite image.

22. (Original) The method according to Claim 1, further comprising a step of:

prompting said user to confirm user information associated with said pre-stored digital image in response to said successful match of said user.

23. (Currently Amended) A system for automatically launching an application in a computing device by authenticating a user via a digital camera associated with said computing device, said method comprising:

(a) a mechanism for obtaining a digital representation of said user via said digital camera;

(b) a mechanism for filtering said digital representation with ~~an~~ digital edge detection algorithm, gradient filter, the output of which is applied to a Laplacian or Gaussian filter to provide accurate edge detection while being run on a low power computer, to produce a resulting digital image;

(c) a mechanism for comparing said resulting digital image to a pre-stored digital image of said user, ~~wherein said comparing includes utilizing a filter to improve comparing of the resulting image with the pre-stored image;~~ and

(d) a mechanism for retrieving user information including an application to be launched in response to a successful comparison result, said user information being associated with said pre-stored digital image of said user; and

(e) a mechanism for launching said application.

24. (Original) The system according to Claim 23, wherein said computing device is connected to a communications network.

25. (Original) The system according to Claim 23, wherein said computing device is incorporated into a household appliance or a security appliance.

26. (Original) The system according to Claim 23, wherein said application is an e-mail client.

27. (Original) The method according to Claim 23, further comprising a mechanism for aligning said user in relation to said computing device for obtaining a digital representation of said user.

28. (Original) The method according to Claim 23, further comprising a mechanism for centering said resulting image with respect to a frame provided in said computing device.

29. (Original) The system according to Claim 23, further comprising a mechanism for logging into said e-mail client by utilizing username and password associated with said user.

30. (Original) The system according to Claim 23, said system further comprising:
a mechanism for retrieving one or more e-mail messages from said e-mail client for said user in response to launching of said e-mail client; and

a mechanism for displaying said one or more e-mail messages to said user
via a display

31. (Original) The method according to Claim 23, further comprising a mechanism for sensing said user in proximity to said computing device for obtaining said digital representation of said user.

32. (Original) The system according to Claim 23, wherein if no match is found for said user, said system further comprising:

a mechanism for prompting said user to enter user information associated with said pre-stored image of said user; and
a mechanism for launching said application in response to a successful match of entered user information to user information associated with said pre-stored image of said user.

33. (Original) The system according to Claim 23, said system further comprising:

a mechanism for updating said pre-stored digital image of said user by merging said pre-stored digital image with said resulting digital image into a composite image.

34. (Currently Amended) A program storage device readable by a machine, tangibly embodying a program of instructions, executable by said machine to perform method steps for automatically launching an application in a computing device by authenticating

a user via a digital camera associated with said computing device, said method steps comprising:

- (a) obtaining a digital representation of said user via said digital camera;
- (b) filtering said digital representation with an digital edge detection algorithm, gradient filter, the output of which is applied to a Laplacian or Gaussian filter to provide accurate edge detection while being run on a low power computer, to produce a resulting digital image;
- (c) comparing said resulting digital image to a pre-stored digital image of said user, ~~wherein said comparing includes utilizing a filter to improve comparing of the resulting image with the pre-stored image;~~
- (d) retrieving user information including an application to be launched in response to a successful comparison result, said user information being associated with said pre-stored digital image of said user; and
- (e) launching said application.

35. (New) The method according to Claim 1, wherein the gradient filter detects edges by identifying intensities in first-order derivatives in orthogonal directions of the image, and the Laplacian or Gaussian filter detects edges by identifying zero crossings in second order derivatives of the image.

36. (New) The system according to Claim 23, wherein the gradient filter detects edges by identifying intensities in first-order derivatives in orthogonal directions of the image, and the Laplacian or Gaussian filter detects edges by identifying zero crossings in second order derivatives of the image.

37. (New) The program storage device according to Claim 34, wherein the gradient filter detects edges by identifying intensities in first-order derivatives in orthogonal directions of the image, and the Laplacian or Gaussian filter detects edges by identifying zero crossings in second order derivatives of the image.